

WISCONSIN DEPARTMENT OF NATURAL RESOURCES

Wisconsin's 2021 Open Water Sportfishing Effort And Harvest From Lake Michigan And Green Bay

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WRITTEN BY

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OVERVIEW

The Wisconsin Department of Natural Resources (DNR) documented the sport fishery in Wisconsin waters of Lake Michigan and Green Bay from March 2021 through November 2021. Fishing effort, harvest and harvest-rates were determined from 1) a stratified-random creel survey of launched-boat, pier, shore and stream anglers; 2) a randomized mail survey of moored-boat anglers; and 3) mandatory charter-boat reporting. For a detailed description of methods, see Eggold, 1995.

RESULTS

Anglers spent an estimated 2,734,359 hours fishing on Lake Michigan and Green Bay during 2021, with boat-angler effort at 2,281,101 hours or 83% of the total hours. The estimated angler hours for the pier fishery were 87,558 hours, 93,710 angler hours for the shore fishery and 271,990 hours for the stream fishery. Fishing effort during 2021 was approximately 7% higher than the ten-year average.

The estimated harvest of 730,099 fish was dominated by Yellow Perch (261,701), followed by Walleye (161,473). The combined Walleye and Yellow Perch harvest was 58% of the total estimated harvest. The boat fishery, comprised of launched-boat, moored-boat and charter-boat anglers, dominated the fishery by harvesting an estimated 677,575 fish or 93% of the total harvest and was again led by Yellow Perch (249,479), followed by Walleye (143,253). Pier anglers harvested 4,094 fish, primarily Coho Salmon (1,321) and Yellow Perch (1,310), followed by Chinook Salmon (959). Stream anglers harvested 43,243 fish, dominated by Walleye (18,190) and followed by Yellow Perch (8,777) and Chinook Salmon (8,712). Shore anglers harvested 5,187 fish, primarily Yellow Perch (2,135), followed by Chinook Salmon (987).

Overall harvest-rates were highest for Yellow Perch at 0.0957 fish/hour, followed by Walleye (0.0591 fish/hour) and Chinook Salmon (0.0367 fish/hour). These three species have had the highest harvest-rates for the past three years.

The 2021 Chinook harvest of 100,323 fish was higher than 2020's harvest, but approximately 24% below the ten-year average. The overall harvest rate for salmonids in 2021 was 0.1054, which is only slightly below the ten-year average harvest rate of 0.1311.

Coho harvest in 2021 was 80,009 fish, an increase from the 2020 harvest and approximately 8% higher than the ten-year average. The 2021 Rainbow Trout harvest of 58,597 fish increased from 2020, but approximately 7% below the ten-year average. Brown Trout harvest in 2021 was 9,178, 42% below the ten-year average. A total of 40,145 Lake Trout were harvested in 2021, which was 35% above the ten-year average and the highest Lake Trout harvest on record since 2001.

The 2021 harvest of Yellow Perch in Green Bay was 258,025, 73% above the ten-year average and the highest harvest since 2013. The Lake Michigan Yellow Perch harvest in 2021 was 3,676 fish. Perch harvest in Lake Michigan remains on an overall downward trend observed since 1993. The sport catch in 2021 was primarily comprised of the 2016 year-class. Age was assigned using the anal spines of 48 Lake Michigan angler-caught Yellow Perch during 2021. The 2016 year-class represented 23% of the total. This year class also comprised the majority of the catch in 2019. The 2017 and 2018 year-classes each represented approximately 21% of the total harvest (42% combined).

In 2021, the standard weight of a 30-inch Chinook was 10.6 pounds, which was approximately 5% above the ten-year average. The standard weight of a 23-inch coho was 4.3 pounds, which was approximately 6% above the ten-year average. The standard weight of a 25-inch rainbow trout was 4.4 pounds, which was 6% above the ten-year average. The standard weight of a 27-inch lake trout was 5.8 pounds, a decrease from 2019 but approximately 2% above the ten-year average.

REFERENCES

Eggold, B.T. 1995. Wisconsin's 1995 open water sportfishing effort and catch from Lake Michigan and Green Bay. Wisconsin Department of Natural Resources, Plymouth, Wisconsin. 18 pages.

Table 1. Estimated angler effort (hours) by location in Wisconsin waters of Lake Michigan and Green Bay during March through December of 2012 through 2021*. Standard deviations are in italics.

Location	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Average
Kenosha Co.	135,980 <i>2,851</i>	128,467 <i>5,199</i>	129,736 <i>5,422</i>	101,058 <i>4,990</i>	108,874 <i>5,432</i>	90,700 <i>3,810</i>	92,655 <i>4,185</i>	99,315 <i>4,417</i>	91,284 <i>4,797</i>	113,635 <i>7,514</i>	109,170 <i>5,000</i>
Racine Co.	131,342 <i>10,091</i>	121,473 <i>8,394</i>	122,082 <i>7,073</i>	102,948 <i>9,243</i>	106,901 <i>7,928</i>	95,490 <i>6,787</i>	110,575 <i>11,954</i>	98,387 <i>6,374</i>	78,832 <i>6,721</i>	93,231 <i>5,784</i>	106,126 <i>8,239</i>
Milwaukee Co.	324,011 <i>14,704</i>	290,544 <i>11,332</i>	255,140 <i>10,894</i>	267,451 <i>10,279</i>	295,517 <i>12,743</i>	267,191 <i>14,736</i>	233,031 <i>13,192</i>	180,123 <i>8,028</i>	179,950 <i>10,877</i>	217,505 <i>8,552</i>	251,046 <i>11,741</i>
Ozaukee Co.	208,450 <i>12,203</i>	203,861 <i>9,749</i>	189,524 <i>9,532</i>	172,896 <i>8,481</i>	215,153 <i>13,880</i>	179,360 <i>13,185</i>	167,683 <i>10,435</i>	156,411 <i>10,337</i>	160,473 <i>8,465</i>	175,610 <i>9,436</i>	182,942 <i>10,722</i>
Sheboygan Co.	225,384 <i>11,503</i>	205,563 <i>9,122</i>	214,111 <i>10,191</i>	216,378 <i>11,974</i>	210,632 <i>11,803</i>	179,246 <i>9,027</i>	163,946 <i>9,813</i>	176,289 <i>16,500</i>	148,393 <i>9,720</i>	175,574 <i>10,928</i>	191,552 <i>11,252</i>
Manitowoc Co.	212,739 <i>10,796</i>	177,336 <i>8,230</i>	187,654 <i>9,404</i>	168,961 <i>8,303</i>	183,440 <i>10,233</i>	139,241 <i>7,010</i>	141,366 <i>8,009</i>	132,408 <i>6,735</i>	141,855 <i>12,574</i>	157,011 <i>9,201</i>	164,201 <i>9,207</i>
Kewaunee Co.	311,407 <i>7,780</i>	372,305 <i>14,837</i>	352,498 <i>15,032</i>	367,149 <i>15,581</i>	288,935 <i>13,131</i>	318,589 <i>13,337</i>	327,150 <i>13,794</i>	222,088 <i>9,598</i>	236,238 <i>11,413</i>	255,212 <i>11,511</i>	305,157 <i>12,825</i>
E. Door Co.	204,549 <i>23,159</i>	195,887 <i>12,008</i>	172,324 <i>8,761</i>	218,354 <i>19,796</i>	204,769 <i>10,839</i>	193,014 <i>9,108</i>	187,941 <i>10,802</i>	181,342 <i>12,741</i>	127,333 <i>10,704</i>	200,707 <i>11,516</i>	188,622 <i>13,696</i>
Green Bay	771,724 <i>26,553</i>	1,084,541 <i>45,814</i>	990,101 <i>46,164</i>	1,127,400 <i>36,334</i>	1,016,928 <i>35,232</i>	1,087,056 <i>40,209</i>	1,032,530 <i>34,218</i>	1,115,720 <i>38,818</i>	799,727 <i>30,260</i>	1,345,874 <i>43,556</i>	1,037,160 <i>38,215</i>
Total Effort	2,525,586 <i>45,010</i>	2,779,977 <i>54,178</i>	2,613,170 <i>53,991</i>	2,742,595 <i>49,548</i>	2,631,149 <i>47,145</i>	2,549,887 <i>49,597</i>	2,456,877 <i>45,624</i>	2,362,083 <i>48,065</i>	1,964,085 <i>40,880</i>	2,734,359 <i>51,171</i>	2,535,977 <i>48,678</i>

*Note: Sport fishing estimates for 2020 are for May – December only.

Table 2. Estimated harvest and total harvest-rate (number per hour, all anglers combined) of salmonids in Wisconsin waters of Lake Michigan and Green Bay during March through December of 2012 through 2021*. Standard deviations are in italics.

Species	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Average
Coho Salmon	73,395 <i>3,114</i>	88,933 <i>3,922</i>	52,297 <i>6,577</i>	41,067 <i>4,339</i>	125,748 <i>5,572</i>	119,788 <i>7,135</i>	85,459 <i>5,176</i>	32,197 <i>2,003</i>	40,349 <i>2,585</i>	80,009 <i>4,716</i>	73,924 <i>4,784</i>
Chinook Salmon	390,385 <i>9,058</i>	144,807 <i>4,330</i>	130,231 <i>3,562</i>	114,528 <i>3,549</i>	138,110 <i>4,725</i>	84,163 <i>3,132</i>	84,228 <i>3,262</i>	63,043 <i>4,012</i>	80,890 <i>3,782</i>	100,323 <i>3,552</i>	133,071 <i>4,603</i>
Rainbow Trout	75,981 <i>2,592</i>	58,429 <i>1,978</i>	72,724 <i>2,259</i>	59,127 <i>1,714</i>	77,004 <i>2,962</i>	66,599 <i>2,661</i>	57,141 <i>2,011</i>	50,258 <i>3,105</i>	54,430 <i>1,996</i>	58,597 <i>2,814</i>	63,029 <i>2,452</i>
Brown Trout	21,337 <i>1,768</i>	17,052 <i>1,273</i>	23,511 <i>1,813</i>	20,335 <i>1,894</i>	23,885 <i>2,632</i>	20,404 <i>1,715</i>	12,625 <i>1,116</i>	8,013 <i>969</i>	3,317 <i>519</i>	9,178 <i>1,742</i>	15,966 <i>1,642</i>
Brook Trout	18 <i>0</i>	0 <i>0</i>	2 <i>0</i>								
Lake Trout	29,094 <i>1,261</i>	27,246 <i>1,003</i>	25,424 <i>1,098</i>	35,778 <i>1,482</i>	19,046 <i>865</i>	20,345 <i>1,115</i>	26,747 <i>1,236</i>	34,197 <i>2,438</i>	38,271 <i>1,645</i>	40,145 <i>1,859</i>	29,629 <i>1,470</i>
Total Harvest	590,210 <i>10,158</i>	336,467 <i>6,406</i>	304,187 <i>8,104</i>	270,835 <i>6,285</i>	383,793 <i>8,356</i>	311,299 <i>8,484</i>	266,200 <i>6,652</i>	187,708 <i>6,052</i>	217,257 <i>5,286</i>	288,252 <i>7,019</i>	315,621 <i>7,411</i>
Harvest-Rate	0.2337	0.121	0.1164	0.0988	0.1459	0.1221	0.1083	0.0795	0.1106	0.1054	0.1245

*Note: Sport fishing estimates for 2020 are for May – December only.

Table 3. Estimated harvest and total harvest-rate (number per hour, all anglers combined) of Yellow Perch in Wisconsin waters of Lake Michigan and Green Bay during March through December of 2012 through 2021*. Standard deviations are in italics.

Location	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Average
Green Bay	148,980	221,158	117,012	98,263	76,281	117,412	115,896	84,200	253,278	258,025	149,051
	<i>13,685</i>	<i>18,974</i>	<i>12,283</i>	<i>10,029</i>	<i>9,289</i>	<i>12,404</i>	<i>11,044</i>	<i>15,389</i>	<i>21,751</i>	<i>19,871</i>	<i>15,794</i>
Harvest-Rate	0.193	0.2039	0.1182	0.0872	0.075	0.108	0.1122	0.0755	0.3167	0.1917	0.1481
Lake Michigan	9,115	8,796	9,277	5,257	2,089	2,481	4,026	3,600	2,013	3,676	5,033
	<i>1,071</i>	<i>1,221</i>	<i>1,108</i>	<i>1,000</i>	<i>586</i>	<i>537</i>	<i>787</i>	<i>882</i>	<i>674</i>	<i>1232</i>	<i>1,123</i>
Harvest-Rate	0.0052	0.0052	0.0057	0.0033	0.0013	0.0017	0.0028	0.0029	0.0017	0.0026	0.0032
Total Harvest	158,095	229,954	126,289	103,520	78,370	119,893	119,922	87,800	255,291	261,701	180,382
	<i>13,727</i>	<i>19,013</i>	<i>12,333</i>	<i>10,079</i>	<i>9,307</i>	<i>12,416</i>	<i>11,072</i>	<i>15,414</i>	<i>21,761</i>	<i>19,909</i>	<i>16,238</i>
Harvest-Rate	0.0626	0.0827	0.0483	0.0377	0.0298	0.047	0.0488	0.0372	0.13	0.0957	0.062

Note: Table 3 reflects that some Door County sites represent Green Bay for yellow perch harvest statistics.

*Note: Sport Fishing estimates for 2020 are for May – December only.

Table 4. Estimated harvest-rate (harvest per hour), harvest and effort for all survey areas and **ALL FISHERY TYPES** for Wisconsin waters of Lake Michigan and Green Bay during 2021. Standard deviations are in *Italics*.

Species	Harvest Per Hour	March/April	May	June	July	August	Sept/Oct	Nov/Dec	Season
Coho Salmon	0.0293	2,503 <i>464</i>	31,782 <i>3,730</i>	30,845 <i>2,677</i>	7,991 <i>822</i>	4,651 <i>417</i>	2,234 <i>319</i>	3 <i>0</i>	80,009 <i>4,716</i>
Chinook Salmon	0.0367	7 <i>3</i>	2,510 <i>390</i>	17,906 <i>1,446</i>	35,673 <i>2,218</i>	26,494 <i>1,579</i>	17,733 <i>1,721</i>	0 <i>0</i>	100,323 <i>3,552</i>
Rainbow Trout	0.0214	4,656 <i>1,333</i>	4,310 <i>530</i>	14,681 <i>1,495</i>	14,557 <i>1,003</i>	14,674 <i>1,318</i>	5,715 <i>942</i>	4 <i>0</i>	58,597 <i>2,814</i>
Brown Trout	0.0034	5,236 <i>1,297</i>	514 <i>327</i>	1,220 <i>919</i>	346 <i>142</i>	1,293 <i>586</i>	559 <i>200</i>	10 <i>0</i>	9,178 <i>1,742</i>
Brook Trout	0.0000	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>
Lake Trout	0.0147	77 <i>39</i>	4,098 <i>653</i>	9,778 <i>1,185</i>	11,825 <i>917</i>	11,092 <i>830</i>	3,266 <i>306</i>	9 <i>0</i>	40,145 <i>1,859</i>
Northern Pike	0.0017	1,205 <i>560</i>	1,083 <i>367</i>	161 <i>108</i>	606 <i>248</i>	489 <i>165</i>	1,127 <i>409</i>	0 <i>0</i>	4,671 <i>847</i>
White Perch	0.0015	0 <i>0</i>	747 <i>490</i>	1,030 <i>733</i>	952 <i>625</i>	1,078 <i>688</i>	266 <i>161</i>	0 <i>0</i>	4,073 <i>1,291</i>
Smallmouth Bass	0.0036	0 <i>0</i>	3,205 <i>976</i>	2,310 <i>1,068</i>	1,142 <i>378</i>	3,191 <i>1,898</i>	81 <i>43</i>	0 <i>0</i>	9,929 <i>2,416</i>
Yellow Perch	0.0957	153 <i>103</i>	7,867 <i>3,669</i>	36,663 <i>7,221</i>	69,032 <i>12,556</i>	58,979 <i>9,103</i>	87,775 <i>9,483</i>	1,232 <i>560</i>	261,701 <i>19,909</i>
Walleye	0.0591	23,668 <i>6,227</i>	41,301 <i>5,694</i>	11,145 <i>2,154</i>	38,292 <i>4,245</i>	35,500 <i>4,137</i>	10,835 <i>1,539</i>	732 <i>443</i>	161,473 <i>10,655</i>
Total Harvest	0.2670	37,505	97,417	125,739	180,416	157,441	129,591	1,990	730,099
Angler Hours		6,540 453,086 <i>33,985</i>	7,880 355,945 <i>17,441</i>	8,498 416,625 <i>15,996</i>	13,555 602,850 <i>21,932</i>	10,465 442,610 <i>14,159</i>	9,827 452,503 <i>14,800</i>	714 10,740 <i>1,667</i>	23,820 2,734,359 <i>51,171</i>

Table 5. Estimated harvest-rate (harvest per hour), harvest and effort for the **BOAT FISHERY** with all surveys combined for Wisconsin waters of Lake Michigan and Green Bay during 2021. Standard deviations are in *Italics*.

Species	Harvest Per Hour	March/April	May	June	July	August	Sept/Oct	Nov/Dec	Season
Coho Salmon	0.0338	1,635	31,264	30,792	7,840	4,575	1,022	3	77,131
		<i>246</i>	<i>3,725</i>	<i>2,677</i>	<i>818</i>	<i>415</i>	<i>127</i>	<i>0</i>	<i>4,686</i>
Chinook Salmon	0.0393	7	2,510	17,906	35,568	26,269	7,405	0	89,665
		<i>3</i>	<i>390</i>	<i>1,446</i>	<i>2,218</i>	<i>1,576</i>	<i>1,039</i>	<i>0</i>	<i>3,274</i>
Rainbow Trout	0.0236	1	4,310	14,646	14,500	14,638	5,630	4	53,729
		<i>0</i>	<i>530</i>	<i>1,495</i>	<i>1,002</i>	<i>1,318</i>	<i>941</i>	<i>0</i>	<i>2,478</i>
Brown Trout	0.0035	4,347	514	1,180	327	1,286	284	10	7,948
		<i>1,279</i>	<i>327</i>	<i>918</i>	<i>141</i>	<i>586</i>	<i>110</i>	<i>0</i>	<i>1,721</i>
Brook Trout	0.0000	0	0	0	0	0	0	0	0
		<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>
Lake Trout	0.0176	77	4,098	9,778	11,825	11,092	3,266	9	40,145
		<i>39</i>	<i>653</i>	<i>1,185</i>	<i>917</i>	<i>830</i>	<i>306</i>	<i>0</i>	<i>1,859</i>
Northern Pike	0.0018	884	1,039	56	573	382	1,072	0	4,006
		<i>526</i>	<i>365</i>	<i>56</i>	<i>247</i>	<i>160</i>	<i>407</i>	<i>0</i>	<i>816</i>
White Perch	0.0016	0	373	1,030	952	1,078	266	0	3,699
		<i>0</i>	<i>374</i>	<i>733</i>	<i>625</i>	<i>688</i>	<i>161</i>	<i>0</i>	<i>1,251</i>
Smallmouth Bass	0.0037	0	2,028	2,289	1,010	3,146	47	0	8,520
		<i>0</i>	<i>782</i>	<i>1,068</i>	<i>371</i>	<i>1,898</i>	<i>33</i>	<i>0</i>	<i>2,344</i>
Yellow Perch	0.1094	0	6,591	33,381	66,594	58,578	84,232	103	249,479
		<i>0</i>	<i>3,633</i>	<i>7,169</i>	<i>12,541</i>	<i>9,100</i>	<i>9,411</i>	<i>113</i>	<i>19,832</i>
Walleye	0.0628	7,288	41,040	11,145	38,292	35,250	9,506	732	143,253
		<i>1,427</i>	<i>5,692</i>	<i>2,154</i>	<i>4,245</i>	<i>4,135</i>	<i>1,516</i>	<i>443</i>	<i>8,757</i>
Total Harvest	0.2970	14,239	93,767	122,203	177,481	156,294	112,730	861	677,575
		<i>2,003</i>	<i>7,831</i>	<i>8,453</i>	<i>13,540</i>	<i>10,461</i>	<i>9,651</i>	<i>457</i>	<i>22,868</i>
Angler Hours		295,717	321,508	388,153	575,610	408,744	283,107	8,262	2,281,101
		<i>30,683</i>	<i>17,282</i>	<i>15,857</i>	<i>21,852</i>	<i>13,900</i>	<i>13,040</i>	<i>1,593</i>	<i>48,321</i>

Table 6. Estimated harvest-rate (harvest per hour), harvest and effort for the **PIER FISHERY** with all survey areas combined for Wisconsin waters of Lake Michigan and Green Bay during 2021. Standard deviations are in *italics*.

Species	Harvest Per Hour	March/April	May	June	July	August	Sept/Oct	Nov/Dec	Season
Coho Salmon	0.0151	439 <i>306</i>	446 <i>169</i>	53 <i>29</i>	142 <i>76</i>	76 <i>34</i>	165 <i>82</i>	0 <i>0</i>	1,321 <i>370</i>
Chinook Salmon	0.0110	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	85 <i>45</i>	225 <i>100</i>	649 <i>141</i>	0 <i>0</i>	959 <i>179</i>
Rainbow Trout	0.0009	0 <i>0</i>	0 <i>0</i>	15 <i>15</i>	21 <i>16</i>	16 <i>12</i>	27 <i>21</i>	0 <i>0</i>	79 <i>33</i>
Brown Trout	0.0004	0 <i>0</i>	0 <i>0</i>	11 <i>11</i>	19 <i>13</i>	7 <i>7</i>	0 <i>0</i>	0 <i>0</i>	37 <i>19</i>
Brook Trout	0.0000	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>
Lake Trout	0.0000	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>
Northern Pike	0.0018	0 <i>0</i>	0 <i>0</i>	98 <i>92</i>	3 <i>3</i>	30 <i>18</i>	29 <i>29</i>	0 <i>0</i>	160 <i>98</i>
White Perch	0.0000	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>
Smallmouth Bass	0.0023	0 <i>0</i>	170 <i>117</i>	21 <i>22</i>	0 <i>0</i>	7 <i>7</i>	0 <i>0</i>	0 <i>0</i>	198 <i>119</i>
Yellow Perch	0.0150	0 <i>0</i>	0 <i>0</i>	818 <i>375</i>	279 <i>120</i>	213 <i>156</i>	0 <i>0</i>	0 <i>0</i>	1,310 <i>424</i>
Walleye	0.0003	0 <i>0</i>	30 <i>31</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	30 <i>31</i>
Total Harvest	0.0468	439 <i>306</i>	646 <i>208</i>	1,016 <i>388</i>	549 <i>150</i>	574 <i>190</i>	870 <i>167</i>	0 <i>0</i>	4,094 <i>612</i>
Angler Hours		10,792 <i>1,950</i>	7,052 <i>979</i>	8,209 <i>919</i>	12,344 <i>1,226</i>	17,054 <i>2,182</i>	32,107 <i>2,620</i>	0 <i>0</i>	87,558 <i>4,328</i>

Table 7. Estimated harvest-rate (harvest per hour), harvest and effort for the **SHORE FISHERY** with all survey areas combined for Wisconsin waters of Lake Michigan and Green Bay during 2021. Standard deviations are in *Italics*.

Species	Harvest Per Hour	March/April	May	June	July	August	Sept/Oct	Nov/Dec	Season
Coho Salmon	0.0076	378 <i>242</i>	72 <i>64</i>	0 <i>0</i>	9 <i>8</i>	0 <i>0</i>	254 <i>120</i>	0 <i>0</i>	713 <i>278</i>
Chinook Salmon	0.0105	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	20 <i>16</i>	0 <i>0</i>	967 <i>197</i>	0 <i>0</i>	987 <i>197</i>
Rainbow Trout	0.0016	74 <i>38</i>	0 <i>0</i>	20 <i>19</i>	36 <i>25</i>	20 <i>15</i>	0 <i>0</i>	0 <i>0</i>	150 <i>51</i>
Brown Trout	0.0085	719 <i>187</i>	0 <i>0</i>	29 <i>22</i>	0 <i>0</i>	0 <i>0</i>	45 <i>30</i>	0 <i>0</i>	793 <i>191</i>
Brook Trout	0.0000	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>
Lake Trout	0.0000	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>
Northern Pike	0.0022	47 <i>37</i>	44 <i>42</i>	7 <i>6</i>	30 <i>30</i>	77 <i>34</i>	0 <i>0</i>	0 <i>0</i>	205 <i>72</i>
White Perch	0.0000	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>
Smallmouth Bass	0.0022	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	132 <i>70</i>	38 <i>20</i>	34 <i>29</i>	0 <i>0</i>	204 <i>78</i>
Yellow Perch	0.0228	153 <i>103</i>	53 <i>44</i>	817 <i>391</i>	750 <i>172</i>	35 <i>23</i>	0 <i>0</i>	327 <i>0</i>	2,135 <i>441</i>
Walleye	0.0000	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>
Total Harvest	0.0554	1,371 <i>327</i>	169 <i>88</i>	873 <i>392</i>	977 <i>191</i>	170 <i>48</i>	1,300 <i>234</i>	327 <i>0</i>	5,187 <i>601</i>
Angler Hours		15,092 <i>1,336</i>	7,452 <i>924</i>	11,632 <i>1,300</i>	8,892 <i>932</i>	9,623 <i>933</i>	40,942 <i>3,592</i>	77 <i>38</i>	93,710 <i>4,356</i>

Table 8. Estimated harvest-rate (harvest per hour), harvest, and effort for the **STREAM FISHERY** with all survey areas combined for Wisconsin waters of Lake Michigan and Green Bay during 2021. Standard deviations are in italics.

Species	Harvest Per Hour	March/April	May	June	July	August	Sept/Oct	Nov/Dec	Season
Coho Salmon	0.0031	51 <i>52</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	793 <i>253</i>	0 <i>0</i>	844 <i>258</i>
Chinook Salmon	0.0320	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	8,712 <i>1,350</i>	0 <i>0</i>	8,712 <i>1,350</i>
Rainbow Trout	0.0171	4,581 <i>1,332</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	58 <i>32</i>	0 <i>0</i>	4,639 <i>1,333</i>
Brown Trout	0.0015	170 <i>103</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	230 <i>164</i>	0 <i>0</i>	400 <i>194</i>
Brook Trout	0.0000	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>
Lake Trout	0.0000	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>
Northern Pike	0.0011	274 <i>189</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	26 <i>19</i>	0 <i>0</i>	300 <i>190</i>
White Perch	0.0014	0 <i>0</i>	374 <i>317</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	374 <i>317</i>
Smallmouth Bass	0.0037	0 <i>0</i>	1,007 <i>572</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	1,007 <i>572</i>
Yellow Perch	0.0323	0 <i>0</i>	1,223 <i>510</i>	1,647 <i>676</i>	1,409 <i>560</i>	153 <i>148</i>	3,543 <i>1,164</i>	802 <i>549</i>	8,777 <i>1,646</i>
Walleye	0.0669	16,380 <i>6,061</i>	231 <i>119</i>	0 <i>0</i>	0 <i>0</i>	250 <i>148</i>	1,329 <i>261</i>	0 <i>0</i>	18,190 <i>6,070</i>
Total Harvest	0.1590	21,456 <i>6,210</i>	2,835 <i>838</i>	1,647 <i>676</i>	1,409 <i>560</i>	403 <i>209</i>	14,691 <i>1,827</i>	802 <i>549</i>	43,243 <i>6,612</i>
Angler Hours		131,485 <i>14,421</i>	19,933 <i>1,924</i>	8,631 <i>1,374</i>	6,004 <i>1,068</i>	7,189 <i>1,289</i>	96,347 <i>5,407</i>	2,401 <i>492</i>	271,990 <i>15,679</i>

Table 9. Average weight, average length and standard weight of salmonids from Wisconsin's Lake Michigan creel survey during 2011 through 2021, all areas and fishery types combined. std = standard deviation.

Year	Average Weight (lbs.)	± 1 Std	Average Length (in.)	± 1 Std	Standard Weight (lbs.)
Coho Salmon					
2011	4.2329	1.8161	22.1766	2.6627	3.9868
2012	3.4466	1.4930	20.6385	2.8135	3.8802
2013	5.3848	2.6743	23.6931	3.4848	4.0654
2014	3.9803	1.9275	21.2898	3.0179	3.9316
2015	4.0000	1.8299	21.4375	3.3676	3.8470
2016	4.7300	1.9033	23.3117	2.6028	3.9260
2017	4.0892	2.1177	22.4113	2.6747	3.6520
2018	4.7184	2.5656	22.0095	3.8256	4.2930
2019	6.5305	2.8447	23.3983	3.3888	4.4539
2021	3.6335	1.6999	20.8590	2.3806	4.2560
Chinook Salmon					
2011	10.1487	5.8206	28.0507	6.0373	10.2631
2012	10.2651	4.0305	30.0844	4.6550	8.8881
2013	10.4966	7.0121	28.1742	6.7792	10.2408
2014	11.3915	5.0015	30.0012	4.8944	10.2321
2015	10.4108	4.5165	29.7477	5.4302	9.1940
2016	10.3154	6.0139	28.1910	5.9369	10.3142
2017	11.8211	6.0754	29.6128	5.8775	10.4097
2018	13.1493	7.0864	30.6361	6.6760	10.0109
2019	13.0167	8.0081	29.9058	6.2441	10.9404
2021	11.5833	7.3158	28.7720	6.9710	10.6334
Rainbow Trout					
2011	6.1851	2.6215	24.8381	3.8826	4.2453
2012	6.3634	2.4765	26.1214	3.7593	4.2812
2013	6.4838	2.6676	25.5596	3.7736	4.0376
2014	6.7767	2.8838	25.9776	3.8120	4.1739
2015	5.7588	2.4129	25.2419	4.4224	3.9037
2016	5.8938	2.5324	24.7988	3.8542	4.2855
2017	6.5706	2.7022	25.8441	4.0113	4.0464
2018	6.4566	2.9929	25.6198	4.1660	3.7403
2019	7.8170	4.6551	25.1044	4.2576	4.3547
2021	6.8752	3.3082	25.3329	3.8655	4.4091
Brown Trout					
2011	4.9160	4.0068	19.7757	5.5077	4.1725
2012	4.7658	2.7347	20.7304	3.7789	4.0676
2013	5.8537	3.0350	22.0303	3.6793	3.9190
2014	5.8459	3.3608	21.2050	4.6428	4.2392
2015	5.1532	3.1955	20.9572	4.3664	3.8568
2016	5.3826	4.0422	20.7914	5.2190	3.9606
2017	5.7685	3.2424	21.9807	3.9553	3.9659
2018	6.1024	3.8362	22.9790	4.4280	3.4505
2019	10.7946	5.2367	25.5988	3.9499	5.4836
2021	7.3147	4.6425	23.2017	5.2133	3.9345
Lake Trout					
2011	6.1933	3.1017	25.0834	3.6291	5.6477
2012	6.7815	3.6110	26.1740	4.1798	5.3274
2013	5.8791	2.7630	25.0904	3.1524	5.3559
2014	6.3332	3.4466	24.7813	4.0396	5.8595
2015	7.4777	3.7718	26.8174	4.1894	5.6124
2016	6.6598	3.4108	25.7354	3.8402	5.8303
2017	6.7796	3.3955	25.8882	3.9219	5.6707
2018	8.4836	4.4129	27.2497	4.0781	6.0765
2019	10.1448	5.9126	27.3294	4.4485	6.3484
2021	7.4925	5.9333	25.1929	4.7050	5.8878

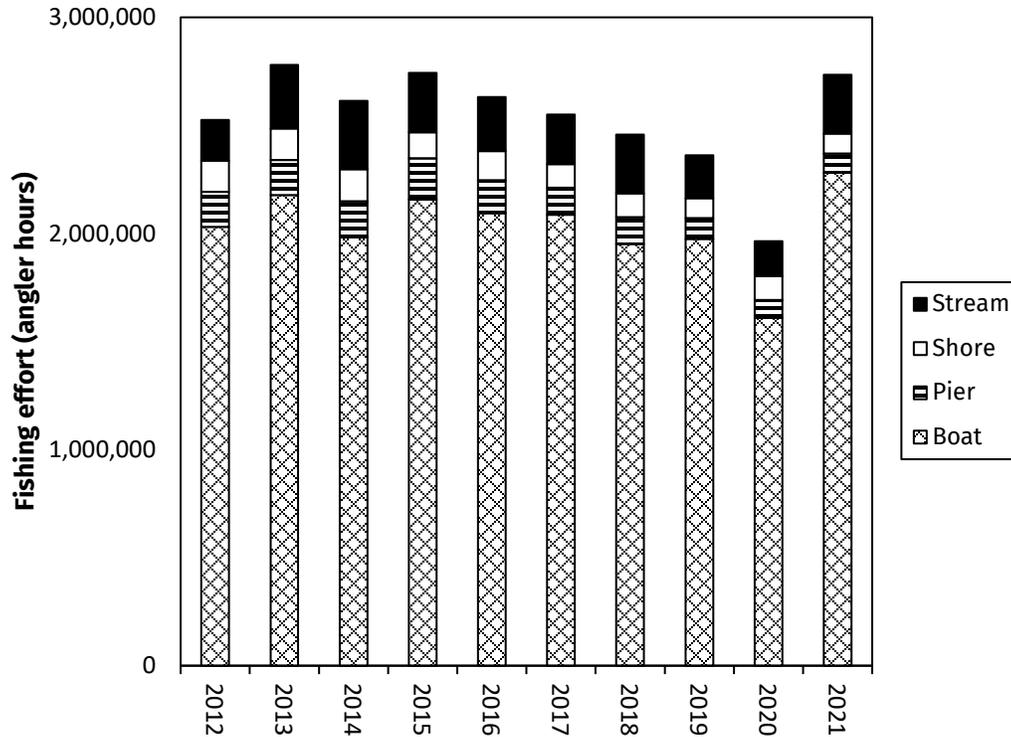


Figure 1. Fishing effort (angler hours) in Wisconsin waters of Lake Michigan and Green Bay from 2012 through 2021. *Note: Sport Fishing estimates for 2020 are for May – December only.

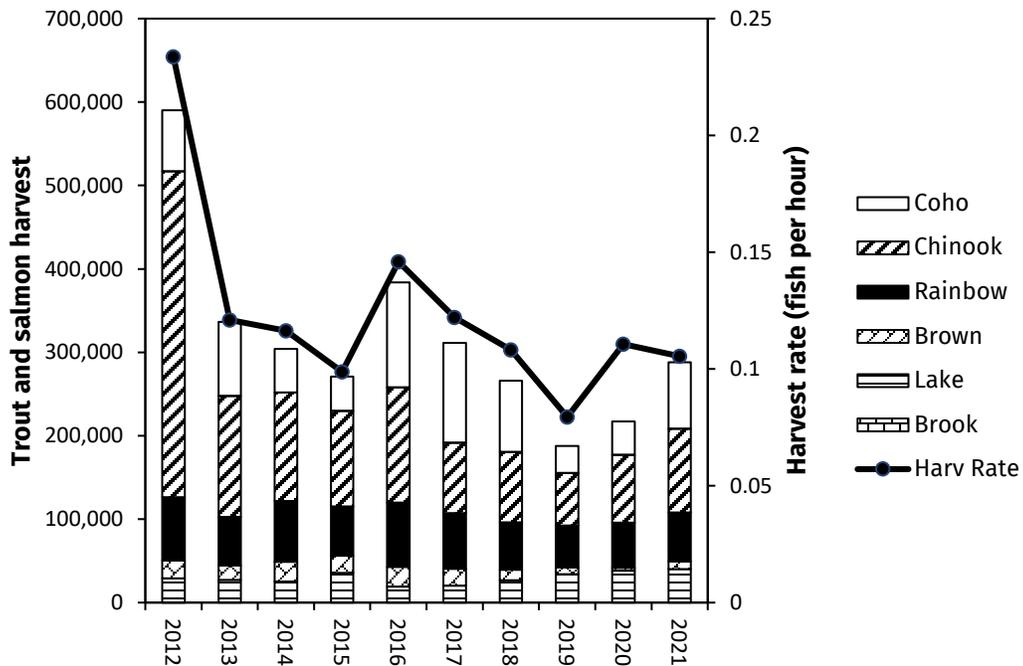


Figure 2. Trout and salmon harvest and harvest rate from Wisconsin waters of Lake Michigan and Green Bay from 2011 through 2021. *Note: Sport fishing estimates for 2020 are for May – December only.

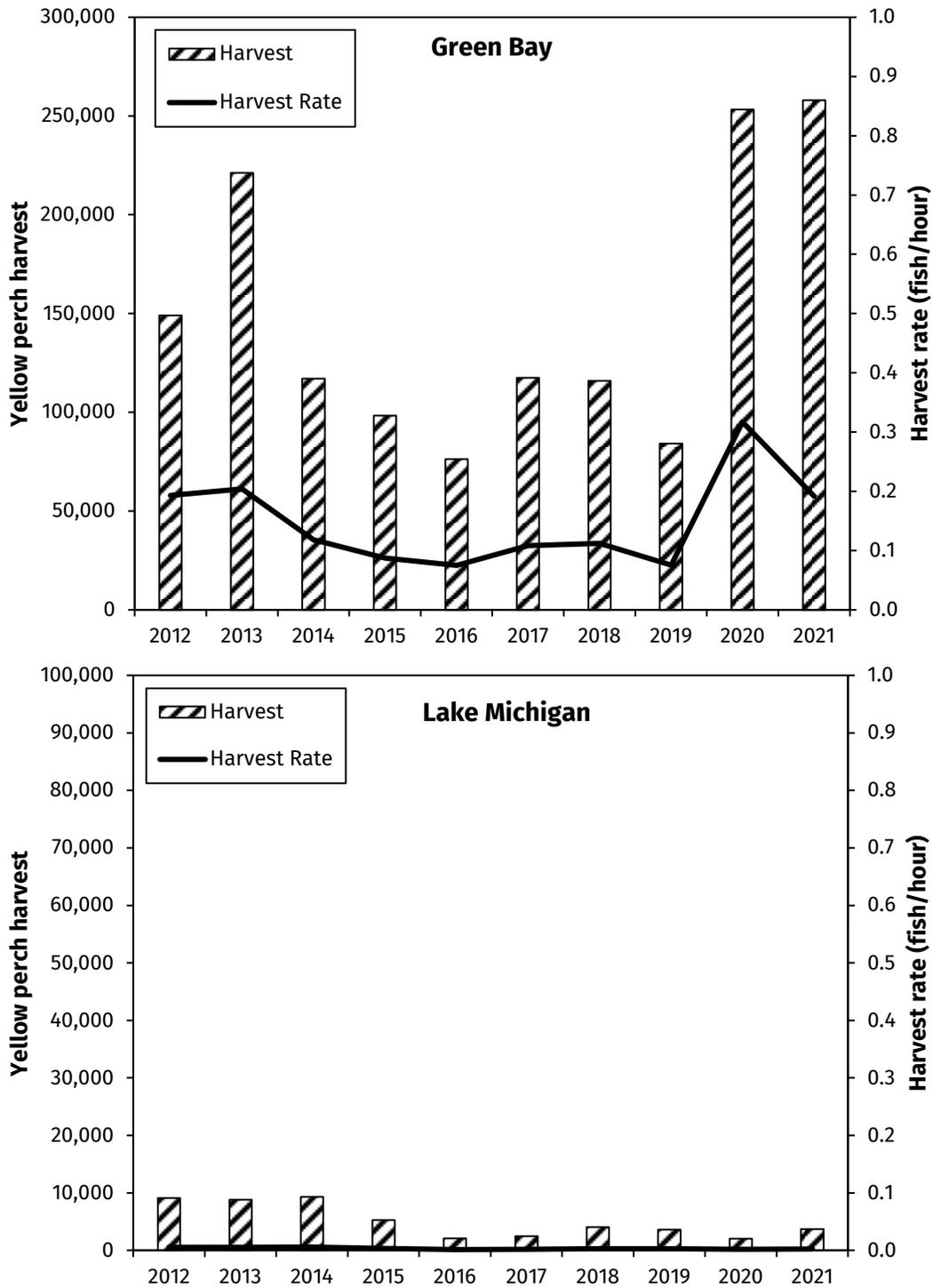


Figure 3. Yellow Perch angler-harvest and harvest-rate from Wisconsin waters of Green Bay and Lake Michigan from 2012 through 2021. Note: Figure 3 reflects that some Door County sites represent Green Bay for Yellow Perch harvest statistics. *Note: Sport fishing estimates for 2020 are for May – December only.